

REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-23 and 27-30 are presently pending in this case. Claims 1, 16, 17, and 20-22 are amended by the present amendment. As amended Claims 1, 16, 17, and 20-22 are supported by the original disclosure,<sup>1</sup> no new matter is added.

In the outstanding Official Action, Claims 21 and 23 were rejected under 35 U.S.C. §101; Claims 20 and 23 were rejected under 35 U.S.C. §102(e) as anticipated by Fanning et al. (U.S. Patent No. 6,742,023, hereinafter “Fanning”); Claims 1-17, 19, 21, 22, and 27-30 were rejected under 35 U.S.C. §103(a) as unpatentable over Fanning in view of Kohonen et al. (“Self Organization of a Massive Document Collection,” hereinafter “Kohonen”); and Claim 18 was rejected under 35 U.S.C. §103(a) as unpatentable over Fanning in view of Kohonen and further in view of Derthick (“Interface for Palmtop Image Search”).

With regard to the rejection of Claims 21 and 23 under 35 U.S.C. §101, it is respectfully noted that Claim 21 is a method claim having two steps: “storing” and “transmitting,” contrary to the assertion in the outstanding Office Action that “They are clearly not a series of steps.”<sup>2</sup> Further, it is respectfully submitted that the correct test for subject matter eligibility is the machine or transformation test described in *In re Bilski*. In the present case, Claim 21 is amended to be tied to a particular machine or apparatus, namely a storage node including an indexer and a client system. Consequently, it is respectfully submitted that Claim 21 (and Claim 23 dependent therefrom) is in compliance with all requirements under 35 U.S.C. §101.

With regard to the rejection of Claim 20 as anticipated by Fanning, that rejection is respectfully traversed.

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<sup>1</sup>See, e.g., the specification at page 14, lines 19-25.

<sup>2</sup>See the outstanding Office action at page 2, line 25.

Amended Claim 20 recites in part:

storing a plurality of information items at each storage node;  
generating by each storage node data representing an information item stored at that storage node, the data representing the information item, when stored, requiring less storage capacity than a corresponding information item;  
***maintaining by an indexer of each storage node a register indicative of whether the data representing the information item has previously been transmitted to the client system;***  
***forwarding data representing information items which have not previously been transmitted to the client system from the storage node to the client system;***  
***updating the register in accordance with the data representing information items which were forwarded to the client system;*** and  
generating a node position in respect of each information item represented by said received data by said client system responsive to the data representing the information item received from the indexer of the storage node.

The outstanding Office Action appears to be interpreting the file index server 200 of Fanning as being the same as the indexer as recited in Claim 20. Further, the Office Action also appears to be interpreting the client/server 12 of Fanning as the same as the storage node recited in Claim 20. However, if client/server 12 can be taken to be a distribution application of Fanning, then Fanning merely discloses the use of one file index server (see column 6, lines 52-64 of Fanning). This is confirmed by column 9, lines 46-47 of Fanning which states that the file index server executes on a remote computer, and thus is not part of a distribution application (client/server).

By way of contrast with Fanning, Claim 20 recites that each storage node (distribution application as interpreted by the Office Action) comprises a respective indexer, so that there are as many indexers as there are storage nodes. In contrast, Fanning merely discloses the use of ***one*** file index server.

Moreover, nowhere does Fanning teach or suggest maintaining by an indexer of each storage node a register indicative of whether the data representing the information item has

previously been transmitted to a client system, nor does Fanning teach or suggest forwarding data representing information items which have not previously been transmitted to the client system from the storage node to the client system, or updating the register in accordance with the data representing information items which were forwarded to the client system. By way of contrast, the index file server 200 in Fanning merely records which files can be found on which distribution application (column 9, lines 52-61). Furthermore, the inventory disclosed in Fanning merely checks to see if a file has been added or removed from the repository (col. 6, lines 38-41).

The use of an indexer which maintains a register as described above advantageously reduces network traffic by reducing the likelihood that data representative of information items already transmitted to a client system will be resent to the client system, especially if a new search is performed on the client system which returns substantially the same results as a previous search. The claimed invention also speeds up searching and generation of node positions from returned search hits because only data representing information items which has not been sent from the storage nodes needs to be sent to the client system.

The above advantages, together with the novel features given above which provide these advantages, are neither taught by nor hinted at by Fanning.

Consequently, as Fanning at least does not teach “maintaining,” “forwarding,” and “updating” as defined in Claim 20, Claim 20 (and Claim 23 dependent therefrom) is not anticipated by Fanning and is patentable thereover.

With regard to the rejection of Claim 1 as unpatentable over Fanning in view of Kohonen, that rejection is also respectfully traversed.

Amended Claim 1 recites in part:

a data network;  
an information retrieval client system connected to said  
data network; and

a plurality of information item storage nodes connected to the data network,  
wherein each storage node comprises a store configured to store a plurality of information items and an indexer, the indexer configured to derive data representing an information item, the data representing the information item, when stored, requiring less storage capacity than a corresponding information item, *the indexer further configured to send the data representing the information item to the client system via said data network, the indexer configured to maintain a register indicative of whether the data representing the information item has previously been transmitted to the client system, to cause data representing information items which have not previously been transmitted to the client system to be forwarded to the client system, and to update the register in accordance with the data representing information items which were forwarded to the client system, and*  
*said client system includes a node position generating unit configured to generate a node position in respect of each information item represented by said received data responsive to the data representing the information item received from said indexer of a storage node.*

As noted above, Fanning does not teach or suggest a storage nodes such that each storage node includes an indexer configured to maintain a register indicative of whether the data representing the information item has previously been transmitted to the client system, to cause data representing information items which have not previously been transmitted to the client system to be forwarded to the client system, and to update the register in accordance with the data representing information items which were forwarded to the client system.

The Office Action also admits that Fanning does not describe a node position generating unit as recited in Claim 1, but states that this feature can be found in Kohonen. However, it is respectfully submitted that Kohonen does not describe a client system that receives data from storage nodes as defined in Claim 1, and therefore is silent as to any features of a storage node as defined in Claim 1. By way of contrast, Kohonen merely describes how to create a self organized map from previously stored data items.

Consequently, as the proposed combination does not teach or suggest “a storage node,” “an indexer,” and “a node position generating unit” as defined in amended Claim 1,

Claim 1 (and Claims 2-15 dependent therefrom) is patentable over Fanning in view of Kohonen.

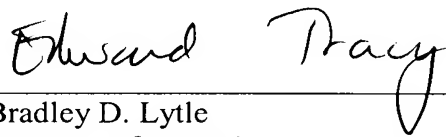
In a similar manner, the “store” of Claim 16, the “node position generating unit” of Claim 17, the “maintaining,” “forwarding,” and “updating” of Claims 21 and 22 are not believed to be taught or suggested by the proposed combination either. Accordingly, Claims 16-23 are also patentable over Fanning in view of Kohonen.

With regard to the rejection of Claim 18 as unpatentable over Fanning in view of Kohonen and further in view of Derthick, it is noted that Claim 18 is dependent from Claim 17, and thus is believed to be patentable for at least the reasons discussed above. Further, it is respectfully submitted that Derthick does not cure any of the above-noted deficiencies of Fanning and Kohonen. Accordingly, it is respectfully submitted that Claim 18 is patentable over Fanning in view of Kohonen and further in view of Derthick.

Accordingly, the pending claims are believed to be in condition for formal allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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